Global Bureau, Office of
Agriculture and
Food Security

U.S. Agency for International Development

POLICY SYNTHESIS

for Cooperating USAID Offices and Country Missions

Number 18 April 1996

Office of Sustainable Development

USAID/Zimbabwe

Zimbabwe Food Security Success Story

Maize Market Reforms Improve Access to Food Even While Government Eliminates Food Subsidies

by

T.S. Jayne, Lawrence Rubey, Munhamo Chisvo and Michael T. Weber[1]

Food Security II Cooperative Agreement between U.S. Agency for International Development, Global Bureau, Economic Growth Center, Office of Agriculture and Food Security and Department of Agricultural Economics, Michigan State University

SYNOPSIS: Basic changes in market regulation have provided an opportunity for low-income consumers in Zimbabwe to improve their diets and real incomes, even while macro-economic adjustments to remove unsustainable food subsidies were being implemented. This synthesis also shows how information on consumer preferences among income groups can be used to make markets work better for the poor, through active promotion of (self-targeted) commodities.

INTRODUCTION: Over the past 10 years, governments and international donor organizations have increasingly recognized the social costs associated with structural adjustment. Almost a decade ago, an influential United Nations report titled *Adjustment with a Human Face* emphasized the potential negative effects of stabilization and adjustment measures on the food security status of vulnerable groups. During the adjustment process, most countries have faced what economists term the "food-price dilemma." That is, governments are caught between the need to induce greater agricultural supply response by offering remunerative producer prices and the desire to keep retail food prices low for both urban and rural consumers. Recently however, it has become clear that some adjustment measures have actually improved household food security by substantially reducing costs in the food system.

The purpose of this synthesis is to document how the Government of Zimbabwe was able to reduce maize meal prices paid by consumers through food market reform at the same time that it eliminated subsidies on roller meal under the country's Economic Structural Adjustment Programme.

BACKGROUND: In an attempt to escape the food-price dilemma, many governments have sought to reduce consumer food prices by providing direct subsidies to food processors. By coupling subsidies with price controls, these general food subsidy schemes are presumed to provide a staple grain or basic commodity basket at prices below that which would prevail in the market. Since subsidized staples are available to all households irrespective of income levels, they are "untargeted." Yet because they are untargeted, general subsidies entail significant fiscal costs.

With many African nations experiencing large budget deficits, general subsidies have often become unsustainable. Although general subsidy programs have sometimes been effective in reducing poverty and improving the nutritional status of the poor, they are not cost-effective if "self-targeted" commodities can be identified (i.e., foods that are consumed primarily by the poor).

Targeted consumer subsidies entail a number of tradeoffs. By excluding some non-needy portion of households, targeting improves the cost-effectiveness of the scheme since the degree of "leakage" is reduced, ideally without sacrificing coverage to the needy groups. However, the administrative costs of targeting increase as the targeting effort intensifies to further reduce leakages. At some point, the increased administrative costs are greater than the cost savings from reducing benefit leakage to non-needy households. Cumbersome administrative procedures designed to reduce leakage can also have the effect of excluding eligible households (Alderman 1991).

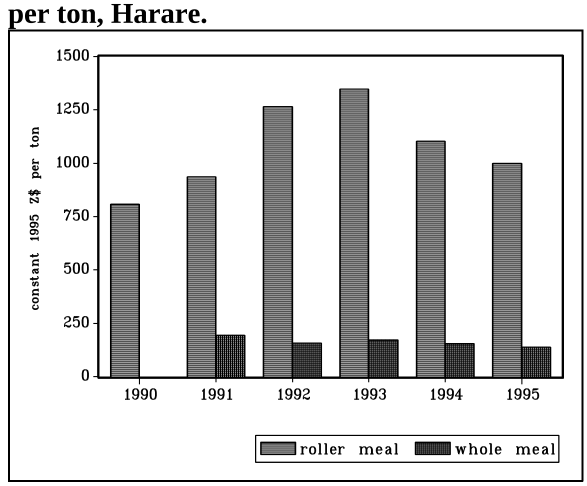
Thus the challenge is to figure out how to target food subsidies so as to address the nutritional needs of the food insecure in a manner that is financially sustainable and does not undermine the chances for assuring food security over the long term. Programs need to be designed that target poor households who have no ability to purchase food, yet which do not disrupt incentives for private markets to efficiently supply the rest of the population, including low income households with limited, yet still effective demand.

ACCOMPLISHMENTS: The experience from Zimbabwe suggest that one approach to this dilemma may be relaxing policy and regulatory constraints that inhibit the introduction of new, lower priced food staples. For decades in Zimbabwe, a complex set of regulations governed marketing of maize, the nation's staple food. Until 1993, the maize marketing system was characterized by a controlled distribution network as well as centralized storage and milling facilities. A semi-autonomous parastatal, the Grain Marketing Board, had a near monopoly in the purchase of maize from farmers. The maize was then transported on to central silos where it was sold to one of four large-scale urban milling firms for processing.

Restrictions on private grain movement impeded direct private trade from surplus to deficit areas, and effectively forced the bulk of marketed output in surplus zones into the parastatal system. The combination of movement controls and restrictions on access to maize ensured that most of the maize meal consumed in urban areas was manufactured by large-scale millers with grain purchased from the Grain Marketing Board.

During this time, maize meal subsidies were an integral component of Zimbabwe food policy. In the early 1990's, maize meal subsidies were limited exclusively to roller meal, a refined maize meal produced by large-scale millers that accounted for at least 90 percent of all maize meal sales. Whole meal, an unrefined maize meal widely consumed in rural areas from maize custom-milled from own-production, was viewed by large-scale milling firms as an "unsophisticated" product for which there was little demand. Consequently, whole meal was not produced by large-scale millers.

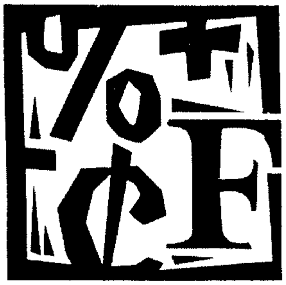
Figure 1. Gross margins for roller maize meal (produced by large-scale mills) and whole maize meal (custom hammer-milled), constant 1995 Z$ per ton, Harare.



Source: Jayne et al. 1995 Note: Margins for roller meal include packaging and distribution to retail shops. Hammer mill margins are for custom milling only, and do not include packaging or opportunity cost of consumer's time to mill grain).

When supplies of grain were available to consumers, whole meal was produced by small-scale "custom" hammer mills. For example, in 1991, small-scale hammer mills in Harare processed 8 percent of the city's maize meal requirements (Jayne et al. 1991). Yet a set of policy restrictions meant that obtaining whole meal was difficult for urban consumers. A combination of parastatal control of maize purchases and sales, preferential access to

Economic Growth



Reforms Stimulate Zimbabwe Economy

In Chitungwiza, Zimbabwe, Musiyiwa Mpofu greets a steady stream of customers all day long. One after another they come with containers of maize. One after another, they watch as he pours the maize into a milling machine and collects meal in a sack that they can carry home. They are happy customers. The *mealie meal*, as Zimbabweans call it, is used to make *sadza*, a staple in the Zimbabwean diet. And it costs about 20 percent less than it did just two years ago.

The reduction in the price of *mealie meal* is related to the proliferation of mills like the one Mpofu operates. Since 1991, entrepreneurs have created more than 10,000 small mills that employ over 22,000 people in rural areas and ensure that *mealie meal* is available throughout the country. The new mills are just one result of Zimbabwe's Grain Marketing Reform Program, a USAID-supported program that is helping Zimbabwe liberalize its grain marketing system. Since poor Zimbabweans spent almost 75 percent of their income on food, cheaper *mealie meal* means increased income available for other needs.

For 60 years, the Government of Zimbabwe maintained a centralized maize marketing system, fixing prices, restricting the movement of grain within the country, and subsidizing industrial millers. "In 1931 the system made sense," said Calisto Chihera, an agricultural economist at USAID/Zimbabwe. "It assured a consistent flow of maize to urban consumers at low prices. But as time went by, the system didn't make sense. Our silos were overflowing with grain and, at the same time, there was chronic malnutrition in deficit areas of the country."

In the 1980s, USAID funded research to find out why abundance and malnutrition existed side by side. Studies conducted by the University of Zimbabwe and Michigan State University revealed the inefficiencies of the Grain Marketing Board, the parastatal that managed the marketing system. "We learned that only 25 percent of the subsidies paid to industrial millers were being passed on to consumers," said Chihera. "Those subsidies were intended to keep maize prices low, but they were costing the government US$5 million per month."

When Zimbabwe initiated its Economic Structural Adjustment Program in 1991, the Grain Marketing Board's deficit had grown to US$8 million. "Something had to be done," continued Chihera. "As part of a comprehensive reform effort by several donors, USAID agreed to support grain marketing reforms. With our studies of food security, we had a big advantage in planning reforms."

To encourage the reforms, USAID agreed to provide four tranches of non-project assistance of US$5 million each. "The agreement was a win-win situation for all," explained Bob Armstrong, agricultural development officer. "Each tranche of USAID assistance included guarantees that Zimbabwe would buy US$5 million in American goods and provide an equivalent amount of Zimbabwean dollars for local currency projects. Local currency funded training programs in rural areas to help people acquire marketing skills and learn how to start businesses. And during the drought in 1992 and 1993, it offset the cost of relief programs."

Since maize is a staple food in Zimbabwe, any change affecting its availability or price has political as well as economic ramifications. "Before making any decisions, government officials wanted to know who were the gainers and losers, and what were the costs and benefits," said Chihera. "After we made the first grant, we realized that we needed analytical backup. So we funded a project that conducts research to answer questions from government decision makers or private sector groups." The research project, implemented by Coopers and Lybrand, is providing valuable information to help policy makers sequence reforms and ease adjustments.

"It's a big change for us to work in an environment where we have to continually assess," admitted Share Jiriyengwa, Planning Manager at the Grain Marketing Board. "In the past, prices were just announced by the government. There were no competitors. People **had** to buy from us, so customer service was never part of our business."

For the people of Zimbabwe, the changes have also required adjustments. Consumers have learned to negotiate prices, comparison shop, and save money by taking grain to the mill, rather than buying pre-packaged meal.

Entrepreneurs have borrowed money, opened mills and learned how to operate businesses. "When we started, we had to do everything," explained Ephraim Whingwiri, owner of Jeti Mills in Magunje. "We had to be innovative. Now we sell meal, cooking oil and stock feed."

"I'm very happy with how the reforms have unfolded," reported Gordon Sithole, Chief Economist in the Ministry of Lands, Agriculture and Water Development. "Our target was five years, but we've done it in four. Some people are unhappy...but in any reform program, you have trade-offs."

The significant losers are four large industrial firms that experienced a 35-40 percent loss of market share in 1993-94. They were so unfamiliar with free market systems that their initial response to falling demand was to **increase** prices. Eventually, some mills closed; other scaled back. Now the firms are diversifying into the production of stockfeed.

The significant winners have been consumers and those who own and work in small mills. Consumers are spending less money on food. Entrepreneurs are experimenting with new products. In Chimanimani, for example, Beta Brothers tried making popcorn from ordinary corn grain and conducted market research to see how it would be accepted. Soon they were selling to wholesalers at prices that ensured them a 100 percent return on investment. The wholesalers sell the popcorn packages to restaurants and bars.

Increased employment, especially in rural areas, is stimulating local economies. Ask Mpofu if he likes his job as a mill operator, and his face bursts into a big smile. He used to be a security guard at a hotel, earning 30 percent less than he earns now.

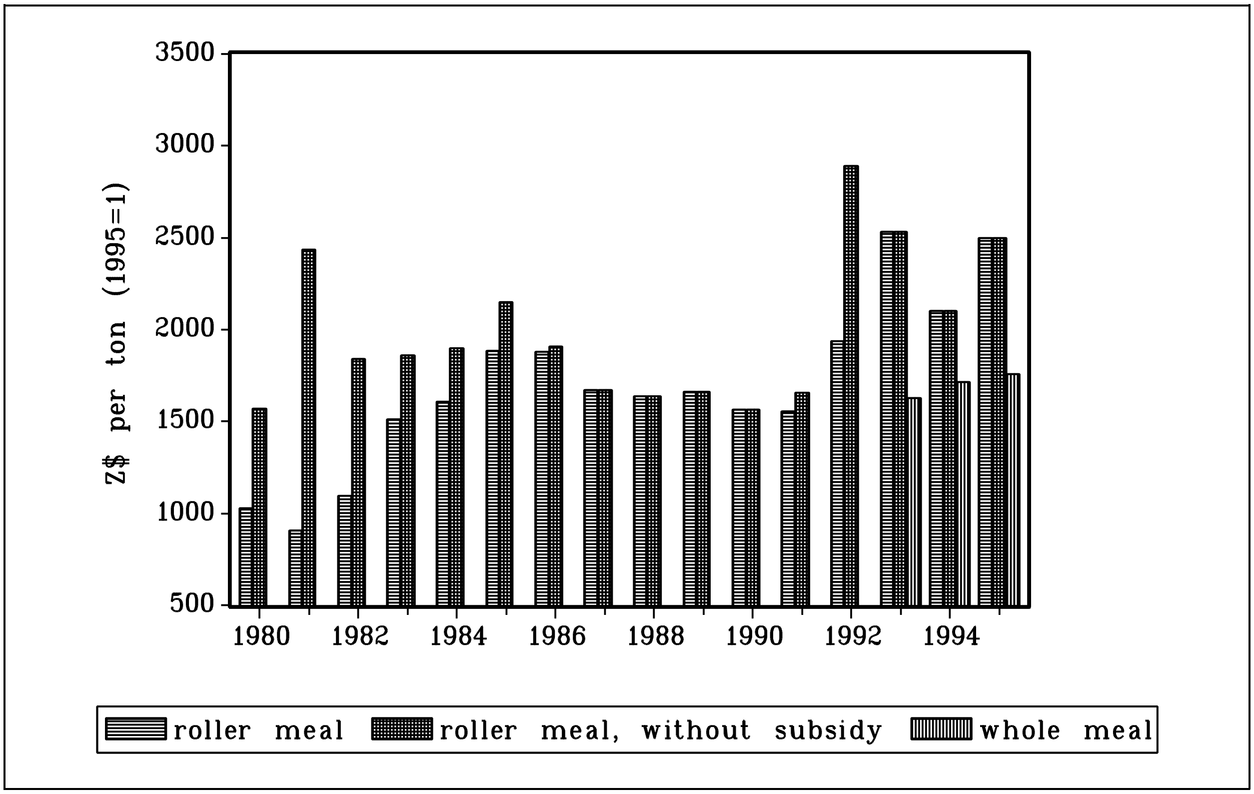
There are problems too—but they are being addressed. Initially, Whingwiri extended credit to many customers, but large amounts remain unpaid, so he has learned to insist on cash payments. Beta Brothers recalled their excitement when they won contracts to supply grain to schools and hospitals, but the government has been very slow to pay them, creating cash flow difficulties for their new business. At the Grain Marketing Board, resources for retraining staff are inadequate. Some staff have embraced the new ways of doing business; others are having difficulty adjusting to the fundamentally different ways of thinking that the reform program requires.

Recently, the government recognized that a market information system is essential to the continuation of a free market system, so that everyone can have equal access to information on what maize is available, where it is, and how much it costs. This system remains to be designed and implemented.

But in communities around the country, the momentum for change is established. "People are getting involved and taking risks," noted Peter Benedict, USAID Mission Director. "The trading sector is empowered. Farmers can buy and sell at will. Consumers have cheaper food and more choices. Communities are experiencing *trickle out entrepreneurship*. It starts with a mill, then a bakery, then shops. One person takes a risk; another follows. The grain reform program is stimulating growth and fostering a vibrant economy in Zimbabwe."

--By Millie Morton, USDA consultant to the Africa Bureau

Figure 2. Zimbabwe prices for roller meal (with and without subsidy) and custom-milled whole meal.



Source: Ministry of Agriculture data files (for price data); IMF (for deflator). Note: Custom-milled whole meal prices are derived as informal market prices for maize grain plus observed custom-milling fee; does not include bagging and time cost of milling grain, and as such is not strictly comparable to roller meal prices since the latter do account for these costs. Informal market prices refer to Harare markets.

maize supplies by large-scale millers, and prohibitions on the transport of maize into urban areas by private traders sharply restricted the ability of small-scale custom millers and urban consumers to obtain needed quantities of maize.

Gross margins for whole maize meal are significantly lower than for roller meal (Figure 1.) Yet the amount of maize available in urban areas for processing by hammer mills was essentially limited to urban production and maize illicitly brought into urban areas.

Research undertaken before food market liberalization predicted that elimination of controls on maize movement into urban areas would substantially increase access to, and affordability of, maize by small millers and low-income urban households. Household survey data also indicated that the unmet demand for whole meal was much greater than actual consumption due to the prevailing policy restrictions on consumers' access to maize (Ministry of Lands, Agricultural and Water Development 1993).

Based on these findings, the Ministry of Lands advocated the removal of maize movement controls between smallholder and urban areas in June 1993. Several donors, including USAID, assisted the Government of Zimbabwe in undertaking a comprehensive reform effort. In August 1993, this recommendation was adopted. All movement controls were abolished in 1994. At about the same time, in June 1993, the roller meal subsidy, which was costing the government the annual equivalent of 2% of GDP, was eliminated. The price of roller meal without the subsidy quickly increased by 53 percent (see Figure 2).

Even the President of Zimbabwe publicly encouraged urban consumers to avoid the effects of subsidy removal by obtaining maize grain and having it milled into whole meal at local hammer mills. Research findings undertaken after the reforms have documented that (a) within a span of two years, the proportion of staple maize meal procured through informal distribution channels has soared from 8% to about 50%; (b) the market reforms have allowed urban household to acquire maize meal at 60%-70% of the cost of maize meal manufactured by large-scale millers; and (c) the cost saving to consumers equals 7%-13% of average household income among the lowest income quintile in the capital city, Harare (Rubey 1995; Jayne et al. 1995). Government policy makers and the general public widely regard these maize market reforms as among the most successful aspects of structural adjustment in Zimbabwe.

These reforms, which proceeded on a solid empirical foundation from household-level data on consumer preferences and maize market behavior, were expected by government advocates of the reforms to offset the effects of subsidy elimination by expanding consumers' access to the less-expensive whole maize meal supplied through the newly legalized informal grain trade.

Donors, especially USAID, have- assisted the Government of Zimbabwe for a number of years in building a solid empirical foundation on smallholder production, rural and urban market behavior and consumer preferences. Coupled with support for capacity building of Zimbabwean analysts, these forms of donor assistance and cooperation are major contributors to helping countries like Zimbabwe achieve their goals of helping private markets work better, especially to the benefit of poor rural and urban consumers.

References

Alderman, Harold. 1991. Food Subsidies and the Poor. In *Essays on Poverty, Equity and Growth*, ed. G. Psacharopoulos. Oxford: Pergamon Press.

Jayne, T.S., M. Rukuni, M. Hajek, G. Sithole, and G. Mudimu. 1991. Structural Adjustment and Food Security in Zimbabwe. In *Toward an Integrated National Food Policy Strategy: Proceedings of the Second National Consultative Workshop*, eds. J. Wyckoff and M. Rukuni. Harare: University of Zimbabwe).

Jayne, T.S., L. Rubey, D. Tschirley, M. Mukumbu, M. Chisvo, A. Santos, M. Weber, and P. Diskin, 1995. "Effects of Market Reform on Access to Food by Low-Income Households: Evidence from Four Countries in Eastern and Southern Africa," *International Development Paper 19*, East Lansing: Michigan State University.

MLAWD. 1993. *Proposals for the Liberalisation of Agricultural Pricing and Marketing and the Development of Efficient and Competitive Marketing Boards: Final Report.* Harare: Government of Zimbabwe, Ministry of Lands, Agriculture and Water Development.

Rubey, Lawrence. 1995. Maize Market Reform in Zimbabwe: Linkages Between Consumer Preferences, Small-Scale Enterprise Development and Alternative Marketing Channels. Ph.D. dissertation, Michigan State University.

[1.] This synthesis draws from research undertaken between the University of Zimbabwe and Michigan State University (Food Security in Southern Africa Research Project, funded by USAID/Harare) and from subsequent research funded by USAID Global Bureau (AFS) and Africa Bureau (SD/PSGE). For more detail, see references below. Authors are: Associate Professor, MSU; Policy Analyst, USAID/Global Bureau; Private Consultant, Harare Zimbabwe; and Professor, MSU. The views expressed in this document are exclusively those of the authors.